



# MACHAKOS UNIVERSITY

University Examinations for 2021/2022 Academic Year

SCHOOL OF AGRICULTURE, ENVIROMENT AND HEALTH SCIENCES

DEPARTMENT OF HEALTH SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (PUBLIC HEALTH)

HPH 306: COMMUNICABLE DISEASES

DATE: 29/8/2022

TIME: 8.30-10.30 AM

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## INSTRUCTIONS:

This paper consists of two sections A and B

### SECTION A

#### Specific Instructions

- This section has one question
- This question is **COMPULSORY**
- The question is 30 Marks

#### QUESTION ONE (30 MARKS)

- a) Define the following terms as used in communicable diseases (3 marks)
- A reservoir
  - Transmission cycle
  - Susceptible host
- b) Explain the challenges of isolation as a disease-control strategy (3 marks)
- c) Explain why *Plasmodium falciparum* malaria infections are the most dangerous (3 marks)
- d) Identify factors that have contributed to the steady decline in typhoid fever cases in Kenya today (3 marks)

- e) Explain challenges faced by people with sexually transmitted infections (STIs) when seeking for screening and treatment (3 marks)
- f) Explain the effects of schistosomiasis infections on the human body (3 marks)
- g) Identify options for diagnosing bacterial meningitis (3 marks)
- h) You are visiting one of the nations affected by the Ebola outbreak, specify the precautions you will need to take (3 marks)
- i) Advice consumers of poultry and poultry products on prevention of avian influenza. (3 marks)
- j) Establish basic diagnostic criteria for dengue hemorrhagic fever (3 marks)

## **SECTION B:**

### **Specific Instructions**

- **This section has four (4) question**
- **Answer any two (2) questions**

**Each question is 20 Marks**

### **QUESTION TWO (20 MARKS)**

- a) You are the public health officer in charge of your sub county hospital, its confirmed and reported that an adjacent primary school has 10 cases of cholera
- What classical signs and symptoms would match the case definition (3 marks)
  - How could the children have been exposed to the infection (2 marks)
  - Explain five (5) preventive and control actions that you will implement in the school (5 marks)
- b) Parasitic helminth infections continue to pose a significant threat to global health. Discuss (10 marks)

### **QUESTION THREE (20 MARKS)**

- a) The Sub County morbidity report for the 1st quarter of 2022, indicate that Malaria cases are on the rise, discuss public health challenges in addressing this concern. (10 marks)

- b) Discuss the DVI (Division of Vaccines and Immunization) recommendations for vaccination of children from birth up to 9 months. (10 marks)

**QUESTION FOUR (20 MARKS)**

- a) Discuss how the transmission of covid-19 was influenced by constraints in case identification and contact tracing (10 marks)
- b) Discuss three levels of disease prevention giving relevant examples (10 marks)

**QUESTION FIVE (20 MARKS)**

- a) Discuss personal precautions that can be taken to help prevent the transmission of infectious diseases (5 marks)
- b) Using examples, discuss factors that play a role in disease prevention and control approaches (15 marks)